



LABORATÓRIO DE INSTRUMENTAÇÃO E FÍSICA EXPERIMENTAL DE PARTÍCULAS

ANNOUNCEMENT FOR THE OPENING OF AN INTERNATIONAL SELECTION TENDER PROCEDURE FOR DOCTORATE HIRING PURSUANT TO ARTICLE 23 OF DECREE-LAW NO. 57/2016 OF 29 AUGUST, UPDATED BY THE LAW Nº 57/2017, OF 19TH JULY

The LIP Board of Directors deliberated the opening of an international selection tender for one vacancy of doctorate to perform duties of research in the scientific area of Experimental Particle Physics, in the scope of the project “LATTES: a novel detector concept for very-high-energy gamma-ray astrophysics in the Southern hemisphere”, with the reference: Project IC&DT – AAC n.º 02/SAICT/2017, n.º 29158, financed by FEDER - Fundo Europeu de Desenvolvimento Regional funds through the COMPETE 2020 - Operacional Programme for Competitiveness and Internationalisation (POCI), Portugal 2020, and by Portuguese funds through FCT - Fundação para a Ciência e a Tecnologia/Ministério da Ciência, Tecnologia e Ensino Superior. The candidate will perform duties as researcher under a non-fixed term work contract (duration until 27,5 months as specified in the project application), under the Portuguese Labor Law.

Application requirements:

The candidates for the position should have a PhD in particle or astroparticle physics. We are seeking for a highly motivated researcher aiming to explore the physical capabilities of the LATTES experiment. Computing skills namely in C++/Python programming languages will be favourably considered.

Work plan:

LIP is leading a project to build a wide field of view gamma-ray experiment to overview the Southern hemisphere sky. This hybrid experiment combines water-Cherenkov detector with Resistive Plate Chambers to reach the lower energies, covering the sensitivity gap between present satellite and ground measurements.

The performance of such detector concept has already been demonstrated but its science capabilities are far from being explored. LATTES is expected to be able to trigger transient observations, for instance flares and gamma-ray burst, being thus fully complementary to the powerful Cherenkov Telescope Array planned to be built on both hemispheres. The integration of LATTES measurements in the multi-messenger panorama with present and future experiments is considered a priority.

Additionally, LATTES would be able to perform long term observations and evaluate large emission structures, for instance the so-called Fermi bubbles.

Given the hybrid nature of the detector, LATTES could be used to improve the sensitivity to mass composition of cosmic rays (CR) in the energy region just below the CR spectrum “knee”.

Finally, the LATTES sensitivity to particle physics measurements, for instance indirect dark matter searches, is yet to be addressed.

The selected candidate is expected to develop work on the above mentioned topics and the interplay with the LATTES reconstruction analyses.

Applicable Legislation

Decree-Law no. 57/2016 of 29th August, which approved the doctorate hiring regime destined to stimulate scientific and technological employment for all knowledge areas (RJEC), updated by the Law nº 57/2017, of 19th July

Labour Code approved by Law no. 7/2009 of 12th February, under its current Reading

Regulatory Decree nº 11-A/2017, of 29th December

Pursuant to article 13 of RJEC, the tender selection panel shall be formed by: President of the jury, Professor Mário Pimenta and Members of the jury, Doutor Ruben Conceição and Doutor Bernardo Tomé.

Workplace shall be at LIP node in Lisbon.

Monthly remuneration to be paid is the one defined by article 15 (1) of the Law nº 57/2017, of 19th July, corresponding to level 33 of the Single Salary Table, approved by Order no. 1553-C/2008 of December 31st, i.e. 2.128,34 Euros.

Any national, foreign and stateless candidates who hold a doctorate degree in Physics or related scientific area and a scientific and professional curriculum whose profile is suited for the activity to be performed can submit their applications. In the event the doctorate degree was awarded by a foreign higher education institution, the degree must comply with the provisions of Decree-Law no. 341/2007 of 12th October.

General tender admission requirements are specified in the previous section.

Pursuant to article 5 of RJEC, selection is to be made based on candidate scientific and curricular career evaluation of the candidates whose application is considered admissible.

Scientific and curricular career evaluation of the position focuses on relevance, quality and currentness:

- a) of scientific, technological production in the last five years, deemed most relevant by the candidate;
- b) of research activities, applied or based on practical work, developed in the last five years, deemed most impactful by the candidate;
- c) of knowledge extension and dissemination activities developed in the last five years, namely under the scope of the promotion of culture and scientific practices, deemed most relevant by the candidate;
- d) of the activities of management of science, technology and innovation programmes, or the experience in observing and monitoring the scientific and technological, or higher education system in Portugal or abroad.

The five-year period mentioned above can be extended by the panel, if requested by the candidate, whenever the suspension of scientific activities is reasoned by socially protected grounds like paternity leave, long-term serious illness, and other legal situations of unavailability to work.

Evaluation criteria are the following:

Evaluation of the CV of the candidates, namely their scientific merit and research capabilities as demonstrated by the diffusion of the scientific results achieved and by the participation on research projects in scientific fields relevant for the proposed work program.

Each member of the panel will value the criteria for each candidate, taking into account the requirements of the duties to be performed, the adequacy of previous experience, his/her relationship to the relevant areas and sub-areas, and his/her experience in the development, implementation, operation and coordination of infrastructures and systems of scientific data processing.

The panel shall deliberate by means of roll-call vote justified under adopted and disclosed selection criteria, with no abstentions allowed.

Minutes of panel meetings shall be executed and shall include a summary of all occurrences of said meeting, as well as of all votes casted by the members and respective reasoning, and shall be provided to candidates whenever required.

After selection criteria application, the panel shall prepare a sorted list of approved candidates and respective classification.

Panel's final decision shall be validated by the leader of the institution, who is also in charge of deciding about the hiring.

Application formalization shall be made by sending:

- a) Motivation letter addressed to the President of LIP
- b) Detailed Curriculum Vitae;
- c) Certificate or diploma copy. Recognition of foreign diploma should be delivered after the selection;
- d) Other documentation relevant for the evaluation of qualifications in a related scientific area.

Candidates shall submit their application files and supporting documentation, preferably in a digital form, in PDF format, via email to natalia@lip.pt, in person at Av. Prof. Gama Pinto, nº 2, 1649-003 Lisboa, during working hours, or by post to the same address. When submitted by post, applications must be sent by registered post with acknowledgement of receipt sent until the last day of application deadline. **The call is open from 17th to 30th July 2018, 17:00 (Lisbon time).**

All candidates who formalise their applications in an improper way or fail to prove the requirements imposed by this tender are excluded from admission. In case of doubt, the panel is entitled to request any candidate to present further documentation supporting his/her statements.

False statements provided by the candidates shall be punished by law.

Both admitted and excluded candidate list and final classification list shall be posted at Av. Prof. Gama Pinto, nº 2, 1649-003 Lisboa, published in the website of LIP: <http://www.lip.pt> and all candidates shall be notified by email with delivery receipt.

Preliminary Hearing and Final Decision Deadline: Pursuant to article 121 of the Administrative Procedure Code, after notified, all candidates have 10 working days to respond. Panel's final decisions are pronounced within a period of 90 days, from application deadline.

This tender is exclusively destined to fill the vacancy and can be terminated at any time until approval of final candidate list, expiring with the respective occupation of said vacancy.

Non-discrimination and equal access policy: LIP actively promotes a non-discrimination and equal access policy, wherefore no candidate can be privileged, benefited, impaired or deprived of any rights whatsoever, or be exempt of any duties based on their ancestry, age, sex, sexual preference, marital status, family and economic conditions, instruction, origin or social conditions, genetic heritage, reduced work capacity, disability, chronic illness, nationality, ethnic origin or race, origin territory, language, religion, political or ideological convictions and union membership.

The panel has approved this announcement in meeting held on 16 July 2018.

Pursuant to Decree-Law no. 29/2001 of 3 February, disabled candidates shall be preferred in a situation of equal classification, and said preference supersedes any legal preferences. Candidates must declare, on their honour, their respective disability degree, type of disability and communication/expression means to be used during selection period on their application form, under the regulations above.